A.Byres

Physics 12 Classroom Guidelines and Expectations

The following guidelines are in place to allow easy cooperation between students and teacher and are intended to facilitate learning and mutual respect among all members of the class. Please follow them carefully to maximize our time together in the classroom.
You are expected to come to every class prepared to work and have all the necessary materials necessary for that class.

1. All tests must be written in order to receive a grade for that section of work. As far as possible answer keys from homework and worksheets will be posted. These may never be removed by a student and are there for you to check work already completed.

2. Missed work will receive a zero (0 %). If work is missed due to a legitimate emergency please see me as soon as you return. Delays will result in a loss of marks. A note signed by a parent or guardian is required.

3. The majority of your marks in this course will come from tests, assignments and labs. These are directly from the learning goals as provided by the BC Ministry of Education. Each learning goal is assigned a percentage of your final mark. Homework assignments are a required part of the course and may be checked without warning. It is essential for you to stay up to date in order to be successful in this course.

4. Tardiness is not acceptable and should be kept to a minimum in order to avoid consequences. Absences and lates will be recorded and reported on. Repeat offenders will face consequences which may include detention periods, phone calls to parents/guardians and even suspensions.

5. There is a zero tolerance policy on cheating. You will automatically receive a 0 for the piece of work and further consequences will be assessed.

6. During testing students should be in possession of a pencil, ink pen, eraser, a clean data sheet and a scientific calculator. Electronic dictionaries may not be used, however should one be required, you may use a paper dictionary.

7. Please observe all school rules as laid out in your agenda.

8. Cell phones and pagers will be turned off for the full duration of the class. Digital cameras, MP3 players and cell phones are absolutely not permitted to be visible in the class for any reason at all.

9. Textbooks remain the property of Cambie and should be kept in good condition. These should be brought to class for every session.

10. This is a rigorous course and requires the student to keep up to date at all times. I will make myself available for extra help with sufficient warning. Please don't hesitate to approach me with questions or problems; I will make every effort to meet with you. The day of the test is not enough warning.

11. Students will not be permitted to leave the class to go to lockers or washroom for the first and last 20 minutes.

12. I will post answer keys notes and other physics related work on my web site at www.cambierobotics.com and please recognize that I am a teacher first and web master second so it may not always be 100% up to date.

Good luck, study hard and persevere always.

Physics 12 Prescribed Learning Outcomes (Learning Goals)

It is expected that students will:

Experiments and Graphical Methods

A1 conduct appropriate experiments

A2 use graphical methods to analyse results of experiments

Vectors (2%)

B1 perform vector analysis in one or two dimensions

Kinematics (7%)

C1 apply vector analysis to solve practical navigation problems

C2 apply the concepts of motion to various situations where acceleration is constant

Dynamics (9%)

D1 apply Newton's laws of motion to solve problems involving acceleration, gravitational field strength, and friction

D2 apply the concepts of dynamics to analyse one-dimensional or two-dimensional situations

W**ork,** E**nergy,** a**nd Power (6%)**

E1 analyse the relationships among work, energy, and power

Momentum (6%)

F1 use knowledge of momentum and impulse to analyse situations in one dimension

F2 use knowledge of momentum and impulse to analyse situations in two dimensions

Equilibrium (12%)

G1 use knowledge of force, torque, and equilibrium to analyse various situations

Circular Motion (8%)

H1 use knowledge of uniform circular motion to analyse various situations

Gravitation (8%)

I1 analyse the gravitational attraction between masses

Electrostatics (13%)
J1 apply Coulomb's law to analyse electric forces
J2 analyse electric fields and their effects on charged objects
J3 calculate electric potential energy and change in electric potential energy
J4 apply the concept of electric potential to analyse situations involving point charges
J5 apply the principles of electrostatics to a variety of situations

Electric Circuits (14%)
K1 apply Ohm's law and Kirchhoff's laws to direct current circuits
K2 relate efficiency to electric power, electric potential difference, current, and resistance

Electromagnetism (15%)
L1 analyse electromagnetism, with reference to magnetic fields and their effects on moving charges
L2 analyse the process of electromagnetic induction